Applies To: **ALL Models**

May 12, 1997

Denso HLD-100 Halogen Leak Detector

A new tool is required to accurately detect A/C refrigerant leaks in all Honda vehicles. The Denso HLD-100 Halogen Leak Detector has the following features:

- Works with both R-12 and R-134a systems.
- Impact resistant polyethylene case.
- Auto balance adjustment; eliminates false alarms by adjusting for background gases in the air.
- A calibration reference vial provides a leak signal to check the unit's accuracy.
- Has a flexible probe extension; finds leaks in hard-to-reach places.
- Small and portable; the battery, cables, and flexible probe extension probe can be transported together as a unit.

NOTE: Yokogawa H-10P, H-10N, and Kent Moore #J39400 are equivalent to the HLD-100.

SPECIFICATIONS

Sensing Element . . . . . Positive Ion Emission Heated Diode

Sensitivity . . . . . (moving probe test per SAE Std. J1627)

Alarm Sensitivity:

Switch Position	R-134a	R-12
Leak Check	3.0 oz./yr	1.0 oz./yr
Search 2	0.5 oz./yr	0.1 oz./yr
Search 1	0.1 oz./yr	0.05 oz./yr

Leak Alarm . . . . . Audible with visible neon lamp

Response Time . . . . . Approximately 1 second (slightly longer with flexible probe extension)

Warm-Up Time . . . . . Approximately 2 minutes

Accuracy . . . . . Exceeds SAE J1627

Hose Length . . . . . 4.5 feet

Probe Extension Length . . . 14 inches

Ambient Operating Temp . . 32° to 104°F

Dimensions . . . . . 5.5″ x 10.5″ x 8.5″

Weight . . . . . 5 pounds

Agency Listings . . . . . UL file SA9717, SAEJ1627, CE-Mark

Power . . . . . 12 VDC-Internal rechargeable, sealed lead acid battery 12 VDC-External Battery using battery clamp/cigarette lighter plug

EXTENDED WARRANTY INFORMATION

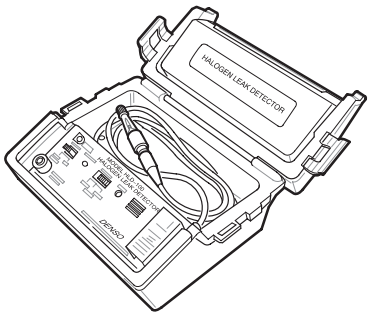
With the following exceptions, the HLD-100 comes with the manufacturer's limited 1 year warranty. Refer to the Operator's Manual for additional details.

- Probe assembly, on/off switch, sensor socket, and carrying case – 3 years
- Printed Circuit Board – 5 years

For repair or service, call Denso Technical Assistance at 800-366-1123.

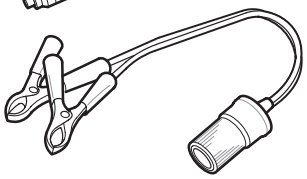
DENSO HALOGEN LEAK DETECTOR KIT:

HLD-100

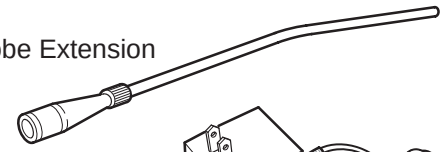


Cigarette Lighter Adapter

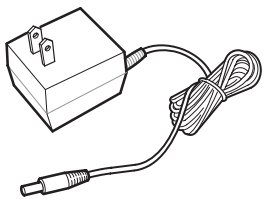
Battery Clamp Cable



14″ Flexible Probe Extension



Standard Battery Charger
120 VAC/13.5 VDC 500 ma



ORDERING INFORMATION

Can be ordered through the American Honda Tool and Equipment Program at 800-346-6327. Ask for the HLD-100.

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CUSTOMER INFORMATION: The information in this bulletin is intended for use *only* by skilled technicians who have the proper tools, equipment, and training to correctly and safely maintain your vehicle. These procedures should not be attempted by "do-it-yourselfers," and you should not assume this bulletin applies to your vehicle, or that your vehicle has the condition described. To determine whether this information applies, contact an authorized Honda automobile dealer.

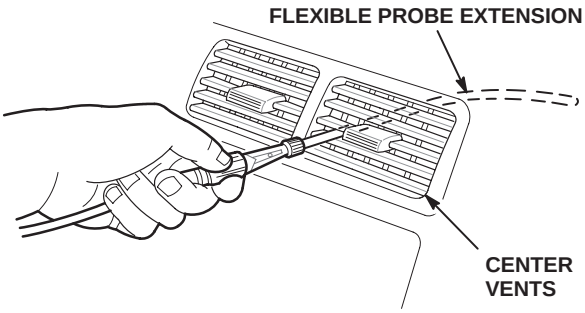
USAGE TIPS

Here are some useful hints when using the HLD-100. Refer to the Operator's Manual for complete operating instructions.

- When using the leak detector for the first time, allow the leak detector to warm up for 2 minutes with the probe in a clean atmosphere; this lets the sensor temperature stabilize.
- Calibration check should be done in the "Search 2" mode. Once done, the other check modes don't need calibrating.
- If checking an evaporator through the drain hose, avoid drawing water into the probe. This could shorten the life and function of the internal pump and sensor.
- Avoid creasing the flexible probe extension when you bend it. This could restrict air flow and give false readings.
- Because the detector recalibrates itself for ambient gases, you may have to move away from the leak momentarily to clear the sniffer, then reapproach the leak.
- When removing the clear probe tip, be careful not to lose the flow ball.

Finding Leaks in the Evaporator Area

1. Start the engine, and turn on the A/C.
2. Set the Fresh/Recirc button to Fresh, then turn the blower motor to High for 15 seconds.
3. Turn off the blower, and set the Fresh/Recirc button to the Recirculation position. Wait 10 minutes to allow any leaking refrigerant to accumulate in the vents.
4. Attach the flexible probe extension, and insert it in the center grille.



5. Turn the blower motor to Low for about half a second; this will force any accumulated refrigerant out through the vent.

GENERAL TIPS WHEN CHECKING FOR LEAKS

- Both R-12 and R-134a are heavier than air, so always check 360 degrees around all fittings.
- If the system is very low on refrigerant, charge it to its normal capacity. (Some leaks are impossible to find unless the system is operating at normal pressures.)
- Refrigerant leaks are also oil leaks. The easiest way to spot a leak is to look for joints or components coated with oily dust. Check for damage and corrosion at the same time.
- When checking the service ports for leaks, be sure the cap seals are in place and the caps are tight. The cap is used as the final seal in the system, not just to keep dirt out of the schrader valve.
- Check the whole system in a continuous path; don't stop the first time the detector indicates a leak. Check all fittings, couplings, service ports, pressure switches, welded areas, and areas around attachment points on lines and components.
- When checking the crimped metal ends on a rubber hose, wiggle the hose around.
- Move the probe slowly (one inch per second is the recommended rate), and keep it within 1/4 inch of the components. Moving the probe even slower at closer proximities increase the likelihood of finding the leak.
- Check the low-pressure side when the system is not running. Check the high-pressure side when the system is running and also right after turning it off. (The air from the cooling fans may give you false alarms.) Since the compressor and the evaporator are in both sides of the system, check these components when the system is running and when it's off.
- Verify apparent leaks by blowing the area with compressed air, then recheck for leaks. In case of a very large leak, blowing out the area may help pinpoint the exact source of the leak.

SERVICING THE HLD-100

Here are some servicing tips for the HLD-100. Refer to the Operator's Manual for detailed service procedures.

- Check and replace the probe filter if it is clogged. Be careful not to lose the flow ball when doing this.
- The reference calibration vial can be expected to last approximately 6 months. Replace it when it is empty.
- If the sensitivity adjustment dial does not calibrate the sensor, replace the sensor.